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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,860	02/11/2002	Tadashi Katafuchi	218249US0DIV	2638

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EXAMINER

JOHNSON, JERRY D

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 04/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

148

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/068,860	KATAFUCHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jerry D. Johnson	1764	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) \_\_\_\_ is/are pending in the application.  
     4a) Of the above claim(s) 6, 7 and 10-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6, 7 and 10-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____  | 6) <input type="checkbox"/> Other: ____                                     |

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A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 31, 2004 has been entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 6, 7 and 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zoleski et al.

Zoleski et al., U.S. Patent 4,375,418, teach a lubricating oil composition for use in medium and high speed marine diesel engine crankcases which has a Total Base Number from about 5 to 40 and contains a mineral lubricating oil, about 0.1-5, preferably about 0.5-2.0, weight percent of an overbased calcium sulfonate, 0.1-7 weight percent of an overbased sulfurized calcium phenate, a zinc dihydrocarbyl dithiophosphate, an alkenylsuccinimide and a friction reducing amount of at least one acyl glycine oxazoline derivative (abstract; column 2, line 64 to column 3, line 11; column 4, lines 60-65). The composition comprises from about 0.5 to 10 weight percent of a nitrogen-containing succinimide dispersant as disclosed in column 2, lines 49-63. When the variable x is zero, as specifically disclosed in column 2, line 23, the alkenylsuccinimide is the product of diethylene triamine and succinic acid compound in a molar ratio of 1. While Zoleski et al. differ from the instant claims in not being limited to the compositions of the instantly claimed method, it would have been obvious to one having

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ordinary skill in the art at the time the invention was made to follow the above teachings and arrive at the instantly method.

Claims 6, 7 and 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zoleski et al. as applied to claims 6, 7 and 10-17 above, and further in view of Le Suer et al. and EP 0 839 894 A1.

Le Suer et al., U.S. Patent 3,172,892, teach a process for the preparation of alkenylsuccinimide dispersants of the instant claims (e.g., Example 1 of Le Suer et al.). In column 4, lines 19-22, Zoleski et al. teach the use of those dispersants.

EP 0 839 894 A1 (EP '894) teaches lube oil compositions for diesel engines, and more particularly to lube oil compositions suitable for use as cylinder oils for two-cycle marine engines (page 2, lines 7-8) comprising (A) at least one compound selected from the group consisting of overbased sulfonates of alkaline earth metals, over based phenates of alkaline earth metals, and salicylates of over based alkaline earth metals and (B) a bis-type succinic imide (page 2, lines 47-52). Compound (A) may be used singly or in combination. It is preferably incorporated in an amount of 5-40% by weight (page 5, lines 17-18). The total acid number of the compositions is preferably adjusted to fall within the range from 30 to 150 mgKOH/g, preferably 40 to 100 mgKOH/g. Total acid number of less than 30 mgKOH/g may fail to neutralize acids perfectly, whereas total acid number of higher than 150 mgKOH/g may increase the ash content in the lube oil, raising the risk of producing great amounts of deposit during long-term use (page 6, lines 1-4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the alkenylsuccinimide dispersants of Le Suer et al. in a lubricating

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oil composition for use in medium and high speed marine diesel engine crankcases as taught by Zoleski et al. because Zoleski et al. specifically teach that those dispersants may be used.

Additionally, it would have been obvious to include at least one compound selected from the group consisting of overbased sulfonates of alkaline earth metals, over based phenates of alkaline earth metals, and salicylates of over based alkaline earth metals in an amount of 5-40% by weight as taught by EP '894 in order to "perfectly" neutralize acids.

Claims 6, 7 and 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vinci et al. in view of EP 0 839 894 A1.

Vinci et al., U.S. Patent 5,334,329, teach lubricating oils comprising ashless dispersants (column 1, lines 5-15). In EXAMPLES B-1 and B-2, ashless dispersants which comprise the reaction products of polyisobutenyl succinic anhydride with diethylene triamine or ethylene diamine are disclosed. The lubricating compositions include crankcase lubricating oils for, *inter alias*, marine diesel engines (column 32, lines 18-23).

While Vinci et al. teach marine diesel lubricants and the addition of other additives (column 28, lines 11-22), Vinci et al. differ from the instant claims in not disclosing the addition of overbased additives.

EP 0 839 894 A1 (EP '894) teaches lube oil compositions for diesel engines, and more particularly to lube oil compositions suitable for use as cylinder oils for two-cycle marine engines (page 2, lines 7-8) comprising (A) at least one compound selected from the group consisting of overbased sulfonates of alkaline earth metals, over based phenates of alkaline earth metals, and salicylates of over based alkaline earth metals and (B) a bis-type succinic imide (page 2, lines 47-52). Compound (A) may be used singly or in combination. It is preferably

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incorporated in an amount of 5-40% by weight (page 5, lines 17-18). The total acid number of the compositions is preferably adjusted to fall within the range from 30 to 150 mgKOH/g, preferably 40 to 100 mgKOH/g. Total acid number of less than 30 mgKOH/g may fail to neutralize acids perfectly, whereas total acid number of higher than 150 mgKOH/g may increase the ash content in the lube oil, raising the risk of producing great amounts of deposit during long-term use (page 6, lines 1-4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made include at least one compound selected from the group consisting of overbased sulfonates of alkaline earth metals, over based phenates of alkaline earth metals, and salicylates of over based alkaline earth metals in an amount of 5-40% by weight as taught by EP '894 in order to "perfectly" neutralize acids in a marine diesel lubricating oil composition as taught by Vinci et al.

Applicant's arguments filed March 31, 2004 have been fully considered but they are not persuasive.

Applicants argue the preferred alkenyl succinimide embodiments of Zoleski et al. are outside the terms of the present claims, the comparative data in the specification demonstrates the importance of the carbon/nitrogen weight ratio maximum of 1.25 and the comparative data demonstrates that results are better when outside the preferred range of x of Zoleski et al.

Under 35 U.S.C. 103, prior art references are to be considered for all subject matter fairly disclosed either alone or together for what they teach the worker of ordinary skill in the art. *In re Metcalf*, 294 F.2d 558, 157 USPQ 423. Accordingly, Zoleski et al. is not limited to specific examples or preferred teachings of the disclosure.

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It is well settled that “[w]hen an applicant seeks to overcome a *prima facie* case of obviousness by showing improved performance in a range that is within or overlaps with a range disclosed in the prior art, the applicant must ‘show that the [claimed] range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.’” *In re Geisler*, 116 F.3d 1465, 1469, 43 USPQ2d 1362, 1365 (Fed. Cir. 1997) (quoting *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990)). In proving such results, it is not enough just to show that certain results are obtained. The results to be probative of nonobviousness must be shown to have been unexpected to the skilled worker in the art. *In re D'Ancicco*, 439 F.2d 1244, 169 USPQ 303 (CCPA 1971); *In re Klosak*, 455 F.2d 1077, 173 USPQ 14 (CCPA 1972); *In re Juillard*, 476 F.2d 1380, 177 USPQ 1570 (CCPA 1973). Moreover, it is axiomatic that evidence presented to rebut a prima facie case of obviousness must be commensurate in scope with the claims the evidence is offered to support. *In re Tiffin*, 448 F.2d 791, 171 USPQ 294 (CCPA 1971).

The comparative data of the specification was not generated by a comparison against the closest prior art, is not commensurate in scope with the claims and has not been shown to be unexpected to the skilled worker in the art.

#### Applicants argue

if one skilled in the art were to combine Katafuchi with Zoleski et al., one skilled in the art would choose the bis-type succinic imide compound of Katafuchi. The Examiner cannot choose from Katafuchi those disclosures that support the rejection, but ignore teachings against it. (Remarks, page 8).

Applicants’ argument lacks merit.

Katafuchi (EP ‘894) has been relied on as teaching that lube oil compositions suitable for use as cylinder oils for two-cycle marine engines (page 2, lines 7-8) comprise at least one

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compound selected from the group consisting of overbased sulfonates of alkaline earth metals, overbased phenates of alkaline earth metals, and salicylates of overbased alkaline earth metals wherein the overbased additive is preferably incorporated in an amount of 5-40% by weight (page 5, lines 17-18), the total acid number of the lubricant composition is preferably adjusted to fall within the range from 30 to 150 mgKOH/g, preferably 40 to 100 mgKOH/g. Katafuchi further teaches that total acid number of less than 30 mgKOH/g may fail to neutralize acids perfectly, whereas total acid number of higher than 150 mgKOH/g may increase the ash content in the lube oil, raising the risk of producing great amounts of deposit during long-term use (page 6, lines 1-4). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made include at least one compound selected from the group consisting of overbased sulfonates of alkaline earth metals, overbased phenates of alkaline earth metals, and salicylates of overbased alkaline earth metals in an amount of 5-40% by weight as taught by EP '894 in order to "perfectly" neutralize acids in a marine diesel lubricating oil composition as taught by Zoleski et al.

Applicant's argument that "one skilled in the art would choose the bis-type succinic imide compound of Katafuchi", is speculative and ignores the teachings of Zoleski et al. Further, Applicants' argument, if accepted, would improperly remove the teachings Zoleski et al. from the available prior art. Attorneys arguments unsupported by factual evidence do not take the place of objective evidence of unobviousness. *In re Lindner*, 173 USPQ 356.

Applicants argue

Vinci et al. make no distinction between any of the many ashless dispersants within their broad disclosure. In addition, Vinci et al disclose and suggest nothing with regard to acid-neutralizing promotion, the presence of an acid-neutralizing promoter, or a total base number of their lubricating oil. (Remarks, page 9).



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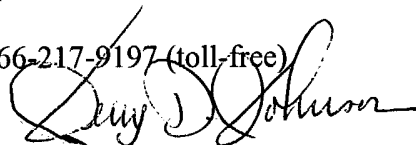
Applicants' argument lacks merit.

As noted above, Vinci et al. teach lubricating oils comprising ashless dispersants (column 1, lines 5-15) which comprise the reaction products of polyisobutenyl succinic anhydride with diethylene triamine or ethylene diamine for, *inter alias*, marine diesel engines (column 32, lines 18-23). Mere recognition of latent properties in the prior art does not render nonobvious an otherwise known invention. *In re Prindle*, 297 F.2d 251, 254, 132 USPQ 282, 283-84 (CCPA 1962).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry D. Johnson whose telephone number is (571) 272-1448. The examiner can normally be reached on 6:00-3:30, M-F, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)



Jerry D. Johnson  
Primary Examiner  
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